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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,631	02/15/2000	William J. Beyda	00P7463US	8142

7590 05/27/2005

Siemens Corporation
Intellectual Property Department
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EXAMINER	
TSEGAYE, SABA	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/504,631	BEYDA ET AL.	
	Examiner	Art Unit	
	Saba Tsegaye	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7 and 9-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7 and 9-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. This Office Action is in response to the amendment filed on 2/16/05. Claims 1-5, 7 and 9-13 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 103

2. Claims 1, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson et al. (US 6,377,683) in view of McNair (US 5,504,810).

Dobson discloses, in Figs. 1-3, a transceiver 10 (claimed a local modem), a transceiver 20 (claimed a remote modem), a modem 204, D/A converter 210, hybrid 212, a summer 258, an echo canceller 270 (claimed a timing unit) and A/D converter 252 (column 5, line 52-column 6, line 43). Fig. 3 shows waveform (a) that represent two frames of data transmitted from transmitter 1 at time T0; waveform (b) frames of data received at transmitter 2 at time T1; waveform (c) represents frames transmitted from receiver 2 at time T2; and waveform (d) represents frames received at receiver 1 at time T3 (claimed plurality of far end echo components) (column 6, line 43-column 7, line 20). Further, Dobson discloses, in Fig. 4, a flowchart of the echo cancellation method, which includes transmitting data signal in step 420; and receive composite signal in step 430. The received composite signal is transformed to a received composite frequency signal in step 440, which then subtracted from the received composite frequency signal in step 460 (column 7, line 43-column 8, line 15). Dobson does not disclose identifying plurality of echoes components by timing intervals between peaks.

McNair teaches a method for providing increased security in a telecommunications network by using **echo reflections within the path** of a telephone call to generate information

about distances between equipment in the call path. Further, McNair teaches that network conditions will cause two echo peaks to be generated, which are separated in time by small delay. The delay between two echo peaks is compared with a predetermined minimum threshold level (column 5, lines 33-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dobson apparatus to have the capability to identify plurality of echoes components by timing intervals between peaks, as taught by McNair. One of ordinary skill in the art would have been motivated to do this because comparing a delay between two echo peaks would allow to detect and control unauthorized use of telecommunications network (column 1, lines 54-62).

3. Claims 2-5, 7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson in view of McNair as applied to claim1 above, and further in view of Walsh et al. (US 5,515,398).

Dobson in view of McNair discloses all the claim limitation as stated above. Further, Dobson discloses that once training is complete the local echo signal of any transmitted frame may be replicated by passing the transmit points through the echo canceller. The replica is then subtracted from the received signal at the output of transformer 256 via summer 258, wherein both receive and transmit data are in the frequency domain (column 6, lines 43-64).

However, Dobson in view of McNair does not expressly disclose data component comprising a sinusoid at predetermined frequency.

Walsh teaches a transmitter for generating a line-probing signal having a finite plurality of different tones or frequencies, and the tones or frequencies have a predetermined relative phase relationship (column 1, lines 38-60).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a method that data component comprises a sinusoid at predetermined frequency, such as that suggested by Walsh, in the method of Dobson in view of McNare in order to improve the accuracy and reliability of data transmission over communication medium.

Response to Arguments

4. Applicant's arguments with respect to claims 1-5, 7 and 9-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
May 18, 2005

JOHN PEZZLO
PRIMARY EXAMINER